ENGINEERING OUR FUTURE

For 25 years, Waterloo Engineering Outreach has worked to promote a better understanding of the impact the STEM fields (Science, Technology, Engineering, and Math) has on the lives of Canadians and others.

We believe that a society where everyone makes the most of their STEM abilities will lead to life-changing discoveries and a better world for all.

We are committed to:

INCREASING AWARENESS
From office supplies to space exploration, we show how engineering and science influence the tools we use on a daily basis and the technologies that will define our future.

UNDERSTANDING AND ENGAGING
Through hands-on activities, we introduce children and young adults to the scientific theories and technical concepts that continue to shape our world.

CULTIVATING CURIOSITY
By explaining how things work around us, we encourage all to ask ‘why is that?’ and to form and test hypotheses to their questions.

INSPIRING ACTION
By instilling a deep appreciation for the importance of science and engineering in society, we motivate students to discover and create technologies that will enhance our quality of life.

GAINING PERSPECTIVE
By connecting with under-represented groups in the engineering field, such as women, aboriginal communities, new Canadians, and low-income families, we reinforce the need for diverse perspectives, opinions, and ideas.

WATERLOO ENGINEERING OUTREACH PROGRAMS ENGAGED OVER 18,500 YOUTH THROUGH 420 EVENTS AND PROGRAMS IN 2014.

Over 87,000 face-to-face hours were spent between staff and participants.
THE CAMP CONTENT IS AMAZING! WEEKS LATER MY CHILD IS STILL TALKING ABOUT THE FUN EXPERIMENTS SHE DID.

Find out more about our elementary programming at esq.uwaterloo.ca.
Engineering Science Quest (ESQ) empowers elementary-aged youth by instilling confidence in their science, technology, engineering, and math abilities. By engaging students through hands-on activities offered in a fun and energetic environment, ESQ fosters an understanding of the technological world.

Every year, ESQ offers over 300 activities delivered across 15 daycamp programs. These activities range from Grade 3 and 4 campers building their own Morse Code to Grade 7 and 8 students disassembling a snow blower engine.

To engage as many students as possible, ESQ offers summer camps both on-campus, in smaller communities and in aboriginal locations across Southwestern Ontario. Outside of the summer, ESQ holds school break programs and in-class elementary workshops. In partnership with local schools, ESQ provides programming that focuses on involving parents in the science education of their children.

Thanks to the help of Waterloo Engineering Outreach supporters, ESQ offers bursaries for families in financial need and an inclusion program to help children with special needs fully participate in its programming. Over 300 children who might not have been able to attend camp without this generous assistance participated in ESQ.

ESQ, a member of Actua, a national network of STEM education programs, was awarded the 2013 Actua & GE Canada Award for Leadership and Innovation in science and technology education. This honour recognizes ESQ on a national level for its dedication to high-impact quality programs, ongoing leadership and supportive engagement of Canada’s most underserved youth.
THE SKILLS I GAINED FROM THE CATALYST PROGRAM MADE ME MUCH MORE CONFIDENT AND COMFORTABLE WHEN PRESENTING OR TAKING ON A LEADERSHIP ROLE.

Find out more about Catalyst at catalyst.uwaterloo.ca.
Catalyst program engages high school students interested in the world of science and engineering, drawing connections between research, leadership skills, team values, and the communities in which they live. Through the Summer Leadership Program and High School Workshops participants gain confidence in their abilities, have a better understanding of the opportunities that are open to them, and are motivated to make a difference.

The Catalyst Summer Leadership Program encourages students to develop leadership skills and community awareness, while tours of research facilities and hands-on activities are complemented by visits to local businesses highlighting careers in technology. Participants also complete a volunteer placement in our Engineering Science Quest youth program, allowing them to put their new skills into practice.

Catalyst’s Women in Engineering conference for Grade 11 students is an impactful, two-day event that encourages young women to pursue careers in technological fields. Participants stay in a university residence and are introduced to the many facets of science, technology, engineering and math at a post-secondary level, which helps them understand the importance of diversity and perspective in all walks of life.
3564 participants in barrier breaking programs

50 unique communities reached

41,000 spots filled to date in summer programming

1000 aboriginal youth reached
42,000
HOURS OF VOLUNTEER OPPORTUNITIES

2664
BURSARIES HANDED OUT
GO ENG GIRL WAS A VERY POSITIVE EXPERIENCE FOR MY DAUGHTER BECAUSE SHE WAS SURROUNDED BY OTHER GIRLS WHO HAVE THE SAME INTERESTS.

Find out more about Women in Engineering at wie.uwaterloo.ca.
WOMEN IN ENGINEERING

Women in Engineering (WiE) supports current female engineers and university students, while encouraging the next generation of women to pursue careers in engineering. The program was established to address the issues that female engineers face and encourage more girls to become engineers. Waterloo Engineering believes that diversity in all forms is crucial to the future of the profession, providing the perspective and creativity necessary to innovate and change the world.

WiE hosts a variety of programs and partnerships at the elementary, secondary and post-secondary levels that are tailored to the needs of their audiences. Hands-on activities and inspiring mentors show young girls that engineering is about developing creative solutions which enhance everyday life.

At Badge Day, girl guides complete all the requirements to earn their science & technology badge. Saturday afternoon girls’ clubs meet once a month to explore a field of engineering with a mentor. The annual Go ENG Girl event held in October is an opportunity for Grade 7-10 girls to visit the university and learn about the exciting field of engineering, while their parents attend an information session.

At the university level, WiE facilitates networking, mentoring, and professional development opportunities for Waterloo Engineering students and alumni, fostering a sense of community and helping them to navigate their educations and careers.

Women in Engineering is governed and directed by a committee of representatives who hold diverse roles at the University of Waterloo.
THESE EVENTS PROVIDE AN EXCELLENT WAY OF SHOWCASING WATERLOO ENGINEERING AND THE WIDE-RANGE OF EXCITING OPPORTUNITIES AVAILABLE TO ENGINEERS.

Find out more about our programming at weconnect.uwaterloo.ca.
Throughout the year, Waterloo Engineering Outreach supports many other events both on and off campus with the goal of enhancing the engineering profession now and in the future.

Established in 1991, Engineering Explorations is a one-day event held during March Break that provides tours of Waterloo Engineering laboratories and facilities. Our researchers offer activities and talks that highlight some of the remarkable work that will impact the lives of the participants and others.

Through the sharing of our expertise and resources, Waterloo Engineering Outreach supports non-profit events in the community that aim to increase interest in science, technology, engineering and math. In the past, we have participated in community events such as the University of Waterloo’s Canada Day celebrations, Kitchener’s KidSpark, the Waterloo Wellington Science and Engineering Fair, and the Waterloo Engineering Sedra Student Design Centre’s Electric Vehicle Challenge.

» Over 8,000 youth were reached through community events.

» Over 700 parents and children visited the University of Waterloo through Engineering Explorations.

» Over 300 faculty members, staff, and undergraduate and graduate students help showcase engineering and science.
THANK YOU! FOR HELPING US MAKE A DIFFERENCE!

The success of our programs is a direct result of the support we receive from all sectors in the community.

Through the volunteering of time, resources and expertise, we are able to provide relevant experiences and connections to both theory and industry.

Through your financial and in-kind sponsorship we are able to provide amazing equipment and materials and offer subsidies for children in need. All of this helps ensure that our participants have a meaningful and engaging experience.

Through taking the time to talk with us, and sharing your ideas, we are able to offer activities and inspire participants in ways that were previously unimaginable.

To all of you who help us with our Waterloo Engineering outreach goals, thank you! Your commitment is invaluable.

If you want to help us continue to make a difference, please contact us at:

weconnect@uwaterloo.ca
519-888-4856
weconnect.uwaterloo.ca

Find out more about our programming at weconnect.uwaterloo.ca.
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